on the members of the colon-typhoid group of organisms, some believing the material to be bactericidal, some thinking that it is not inhibitory, while others believe that some of the organisms are killed at first, with a subsequent proliferation of the survivors. BECKWITH and LYON (*Jour. Inf. Dis.*, 1921, xxviii, 62) attempted to ascertain the viability of a given strain of B. typhosus in bile, as well as its ability to multiply in bile. Seven specimens of bile, including five human, one rabbit and one beef, were sterilized at fifteen pounds' pressure for fifteen minutes and were seeded with two 2 mm. loopfuls of a twenty-four-hour broth culture of a strain of B. typhosus which had been isolated from a carrier. It was found that this organism was long-lived in the human, rabbit and ox bile. To determine the rate of growth, four specimens of beef bile were pooled, autoclaved as before and 100 c.c. quantities were inoculated with 0.5 c.c. of a twenty-four-hour broth culture. Plate determinations, according to the methods for counting milk and water, were made at intervals of one-half, one, one and a half, two, three, four, six, eight, twenty-four and forty-eight hours. As a control, beef broth of the same reaction as the sterilized bile (P_h 8.4) was inoculated and similarily examined. It was noted that the bacteria suffered a high mortality in the early hours of incubation in the beef bile. This was followed by a bacteriostatic action with a later "slow but progressive proliferation,"—facts, as the authors indicate, which confirm some of the observations of Jordan and Ecker.

Fate of Microörganisms Introduced into Isolated Loops of the Intestine.—In order to test the validity of the assumption that pathogenic organisms are killed or inhibited in the intestinal tract—particularly "by the antagonistic action of the normal intestinal flora—" EISKAMP and PARK (*Jour. Inf. Dis.*, 1921, xxviii, 67) introduced by means of a hypodermic needle, 5 c.c. of various bacterial suspensions into the ligated loops of both duodenum and jejunum of 26 dogs. From within two to five or even twelve hours the animals were killed and aërobic plated determinations were made by the dilution methods of milk and water analysis. It was found that S. lutea completely disappeared from both loops within two hours and B. violaceus within five hours. S. aureus became greatly reduced in number in the jejunal loop within three hours and disappeared from both loops within twelve hours, as did the spores of B. subtilis, while red yeast disappeared from the duodenal loop in twelve hours. B. typhosus was markedly reduced in numbers within five hours. The experiment with streptococci were inconclusive and the spores of B. anthracis were not killed. Samples of the intestinal contents withdraw from each loop immediately after infection of microörganisms were incubated aërobically and anaërobically and counts of these were made at the time of necropsy. Practically no bacterial destruction was found in the incubated contents, except in the instance of S. lutea. There was an appreciable multiplication of S. aureus after longer incubation "in spite of the presence of numerous, presumably antagonistic forms." The authors conclude that many bacteria injected into isolated loops of the intestine of dogs are destroyed in from two to seven hours, that the destruction is not due to the antagonistic action of the normal intestinal flora and that there is evidently a distinct antibacterial mechanism in the intestine, the nature of which is at present unknown.

HYGIENE AND PUBLIC HEALTH

UNDER THE CHARGE OF

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The Comparative Toxicity of Thymol and Carvacrol (Isothymol).—LIVINGSTON (*Public Health Rep.*, 1921, xxxvi, 1317) found that for rabbits there was but little difference between thymol and the isomer, carvacrol, though the indications were that the latter was slightly more toxic. Work on earthworms and paramecia gave results showing no material difference in the toxicity of the two substances. Carvacrol can be produced much more cheaply than can thymol and has the advantage of being readily produced in any quantity from materials of domestic origin, while thymol is obtained abroad.

Bacteriologic Studies of the Upper Respiratory Passages (the Influenza Bacilli (Pfeiffer) of the Adenoids and Tonsils)—PILOT and PEARLMAN (*Jour. Inf. Dis.*, 1921, xxix, 55) state that Gram-negative, polemorphic, hemoglobinophilic bacilli, showing a preference for heated blood agar and revealing the characteristic property of symbiosis, were isolated and identified in 40.9 per cent of extirpated adenoids and in 53.9 per cent of the excised tonsils from 115 persons. In the nasopharynx they were present in 40 per cent of 25 persons and in fewer numbers. The tonsils and adenoids, therefore, are foci in which influenza bacilli (Pfeiffer) commonly flourish.

The Incidence of Pneumococci, Hemolytic Streptococci and Influenza Bacilli (Pfeiffer) in the Nasopharynx of Tonsillectomized and Non-tonsillectomized Children.—MEYER, PILOT and PEARLMAN (*Jour. Inf. Dis.*, 1921, xxix, 60) found that pneumococci, hemolytic streptococci and B. influenzæ were often found in the nasopharynx of normal children. The incidence and numbers of hemolytic streptococci and influenza bacilli in the nasopharynx is decidedly less in the children whose adenoids and tonsils had been removed. In case of the pneumococcus the numbers are less in the same children than in those whose tonsils were present. The removal of tonsils and adenoids reduces the number of certain bacteria in the oropharynx and nasopharynx, but does not cause their disappearance.

The Diphtheria Bacilli and Diphtheroids of the Adenoids and Tonsils.—PILOT (*Jour. Inf. Dis.*, 1921, xxix, 62) studied cultures made of the excised adenoids of 100 children and revealed B.